GCCGGAGGGGCTCTCAGGACTTCGGCGCGGGACTCAAGTACAACTCCCGGCTAGAGAACATGAATGGCTTTGAGGAGGGTGTGGA GTTCCTGCCTGCGAACAATGCCAAGAAAGTGGAGAAGCGAGGCCCCAGGCGCTGGTGGTGCTGGTGGCAGTGCTGTTCAGCTTCC TCTTGCTCTCCTCATGGCTGGCTGTGGTGTGGCACTTCCATTATCGGAATGTGCGGGTTCAAAAAGTCTTCAATGGCCATCTG TCAGGACAACAGCTGCAGTTTTGCCCTGCATGCCCATGGTGCAGCAGTGACACGCTTCACTACCCCTGGCTTCCCCAACAGTCCCT ACCCGCCCATGCCCCTGCCAGTGGGTCCTGCGGGGGGGCCCGACTCTGTGCTGAGCCTCACCTTCCGAAGCTTTGATGTCGCT CACCTTCTCACCCTCCTACAACCTGACTTTCCTCTCCCCAGAACGTCTTCCTTGTCACGCTGATAACCAATACTGACCGGCGAC ATCCTGGCTTTGAGGCCACTTTCTTCCAGCTGCCCAAGATGAGCAGCTGTGGCGGCTTTTTGAGTGACACCCAAGGGACATTTAGC AGCCCCTACTATCCAGGCCACTACCCGCCCAACATCAACTGCACATGGAATATCAAGGTGCCCAACAACCGGAACGTGAAGGTGCG  $\verb|CTTCAAACTCTTCTATCTGGTGGACCCCAACGTACCAGTGGGCTCCTGCACCAAGGACTATGTGGAGATCAACGGGGAGAAGTACT| \\$ GCGGTGAGAGGTCCCAGTTTGTGGTGAGCAGCAACAGCAGCAGATTACAGTCCACTTCCATTCTGATCACTCGTACACGGACACC GGGTTCCTAGCTGAGTACCTCTCCTACGACTCCAACGACCCGTGCCCAGGGATGTTCATGTGCAAGACTGGACGGTGCATCCGAAA GCAAAAACCAGTTCTGCAAGCCCCTCTTCTGGGTCTGTGACAGTGTCAACGACTGTGGGGACGGAAGTGACGAGGAGGGCTGCAGC TGTCCTGCTGGGAGTTTCAAGTGTTCCAATGGGAAGTGTCTCCCTCAGAGCCAGAAGTGTAATGGGAAGGACAACTGTGGAGATGG AGGGCAACCCTGAGTGTGATGGGAAGACGGACTGTAGCGATGGCTCCGATGAGAAAAACTGTGACTGTGGGCTGCGATCCTTTACC AAACAGGCTCGCGTGGTTGGTGGCACGAATGCGGACGAGGGCGAGTGGCCCTGGCAGGTGAGCCTCCACGCCCTGGGCCAGGGCCA CTTGTGTGGGGCCTCGCTCATCTCTCTGACTGGCTGGTCTCTGCAGCTCATTGCTTTCAGGATGACAAAAATTTCAAGTACTCAG ATCATCACCCACCTTCCTTCAATGATTTCACCTTCGACTATGACATCGCCTTGCTGGAGCTGGAGAAGTCGGTGGAGTACAGCAC AAGAGGAGGTACCGGAGCGCTGATCCTGCAGAAGGGTGAGATCCGTGTCATCAACCAGACCACCTGTGAGGACCTCATGCCGCAG  $\tt CTGTCATTGAGCTCCCGGGAGCCCTATGGGAGGGGGGGCTCAGGGTCACTCTTTTCAGGAAGCGCCAGCCCTAGGAACCCCCAGAAA$ AAAAAAAAA (SEQ ID NO:1)

> MGSNRGRKAGGGSODFGAGLKYNSRLENMNGFEEGVEFLPANNA KKVEKRGPRRWVVLVAVLFSFLLLSLMAGLLVWHFHYRNVRVQKVFNGHLRITNEIFL DAYENSTSTEFISLASQVKEALKLLYNEVPVLGPYHKKSAVTAFSEGSVIAYYWSEFS  ${\tt IPPHLAEEVDRAMAVERVVTLPPRARALKSFVLTSVVAFPIDPRMLQRTQDNSCSFAL}$ HAHGAAVTRFTTPGFPNSPYPAHARCQWVLRGDADSVLSLTFRSFDVAPCDEHGSDLV TVYDSLSPMEPHAVVRLCGTFSPSYNLTFLSSQNVFLVTLITNTDRRHPGFEATFFQL PKMSSCGGFLSDTQGTFSSPYYPGHYPPNINCTWNIKVPNNRNVKVRFKLFYLVDPNV PVGSCTKDYVEINGEKYCGERSQFVVSSNSSKITVHFHSDHSYTDTGFLAEYLSYDSN DPCPGMFMCKTGRCIRKELRCDGWADCPDYSDERYCRCNATHQFTCKNQFCKPLFWVC DSVNDCGDGSDEEGCSCPAGSFKCSNGKCLPQSQKCNGKDNCGDGSDEASCDSVNVVS  $\verb|CTKYTYRCQNGLCLSKGNPECDGKTDCSDGSDEKNCDCGLRSFTKQARVVGGTNADEG|$ EWPWQVSLHALGQGHLCGASLISPDWLVSAAHCFQDDKNFKYSDYTMWTAFLGLLDQS  $\tt KRSASGVQELKLKRIITHPSFNDFTFDYDIALLELEKSVEYSTVVRPICLPDATHVFP$ AGKAIWVTGWGHTKEGGTGALILOKGEIRVINOTTCEDLMPQQITPRMMCVGFLSGGV DSCQGDSGGPLSSAEKDGRMFQAGVVSWGEGCAQRNKPGVYTRLPVVRDWIKEHTGV (SEQ ID NO:2)

## <u>underlined</u> = deleted in targeting construct

[] = sequence flanking Neo insert in targeting construct

CATGGTAGACGGCTGCCCGGAGGGACCACGCGTCTGAGACCGGCGATCGGACCGCCAAAA CCATGGGTAGCAATCGGGGCCGCAAGGCCGGAGGGGCTCTCAGGACTTCGGCGCGGGAC TCAAGTACAACTCCCGGCTAGAGAACATGAATGGCTTTGAGGAGGGTGTGGAGTTCCTGC CTGCGAACAATGCCAAGAAAGTGGAGAAGCGAGGCCCCAGGCGCTGGGTGCTGGTGG ATTATCGGAATGTGCGGGTTCAAAAAGTCTTCAATGGCCATCTGAGGATCACAAATGAGA TGAAGGAGGCGCTGAAGCTGCTGTACAATGAAGTCCCTGTCCTGGGTCCCTACCACAAGA AGTCGGCTGTAACTGCCTTCAGTGAGGGCAGTGTCATCGCCTACTACTGGTCAGAGTTCA GCATCCCCCACACCTGGCAGAAGAGGTTGATCGCGCCATGGCTGTGGAGCGAGTTGTAA CATTGCCACCCCGAGCACGGGCACTGAAATCCTTCGTGCTAACATCTGTGGTGGCCTTCC CCATTGACCCCAGAATGCTGCAGAGGACTCAGGACAACAGCTGCAGTTTTGCCCTGCATG CCCATGGTGCAGCAGTGACACGCTTCACTACCCCTGGCTTCCCCAACAGTCCCTACCCGG CGCATGCCCGCTGCCAGTGGGTCCTGCGGGGGGACGCCGACTCTGTGCTGAGCCTCACCT TCCGAAGCTTTGATGTCGCTCCCTGTGATGAGCATGGCAGTGACCTGGTCACCGTGTATG ATAGCCTGAGCCCCATGGAACCCCACGCTGTGGGGGCTGTGTGGCACCTTCTCACCCT CCTACAACCTGACTTTCCTCCTCCCAGAACGTCTTCCTTGTCACGCTGATAACCAATA CTGACCGGCGACATCCTGGCTTTGAGGCCACTTTCTTCCAGCTGCCCAAGATGAGCAGCT GTGGCGGCTTTTTGAGTGACACCCAAGGGACATTTAGCAGCCCCTACTATCCAGGCCACT ACCCGCCCAACATCAACTGCACATGGAATATCAAGGTGCCCAACAACCGGAACGTGAAGG TGCGCTTCAAACTCTTCTATCTGGTGGACCCCAACGTACCAGTGGGCTCCTGCACCAAGG ACTATGTGGAGATCAACGGGGAGAAGTACTGCGGTGAGAGGTCCCAGTTTGTGGTGAGCA GCAACAGCAGCAAGATTACAGTCCACTTCCATTCTGATCACTCGTACACGGACACCGGGT TCCTAGCTGAGTACCTCTCCTACGACTCCAACGACCCGTGCCCAGGGATGTTCATGTGCA AGACTGGACGGTGCATCCGAAAGGAACTGCGCTGCGACGGCTGGGCAGACTGCCCGGATT ATAGTGATGAGCGTTACTGCCGATGCAATGCCACCCACCAGTTCACGTGCAAAAACCAGT TCTGCAAGCCCCTCTTCTGGGTCTGTGACAGTGTCAACGACTGTGGGGACGGAAGTGACG AGAGCCAGAAGTGTAATGGGAAGGACAACTGTGGAGATGGGTCTGACGAGGCTTCATGTG ACAGCGTGAATGTCGTCTCTTGCACCAAATATACCTACCGCTGCCAAAATGGCCTCTGTC TGAGCAAGGGCAACCCTGAGTGTGATGGGAAGACGGACTGTAGCGATGGCTCCGATGAGA ATGCGGACGAGGGCGAGTGGCCCTGGCAGGTGAGCCTCCACGCCCTGGGCCAGGGCCACT TGTGTGGGGCCTCGCTCATCTCTCCTGACTGGCTGGTCTCTGCAGCTCATTGCTTTCAGG ATGACAAAAATTTCAAGTACTCAGACTACACGATGTGGACGGCCTTCCTGGGTCTGCTGG ACCAGAGCAAGCGCAGTGCCTCTGGGGTGCAGGAGCTGAAGCTCAAACGTATCATCACCC ACCCTTCCTTCAATGATTTCACCTTCGACTATGACATCGCCTTGCTGGAGCTGGAGAAGT CTGCTGGCAAGGCCATCTGGGTCACAGGCTGGGGGCACAAAAGAGGGGAG [GTACCGGA GCGCTGATCCTGCAGAAGGGTGAGATCCGTGTCATCAACCAGACCACCTGTGAGGACCTC ATGCCGCAGCAGATCACCCCACGAATGATGTGTGTGGGGTTTCCTCAGTGGGGGTGTGGAC TCCTGC] CAGGGTGACTCTGGTGGCCCCTTGTCAAGCGCGGAGAAAG [ATGGGCGAATGT TCCAGGCTGGTGTGGTGAGCTGGGGTGAAGGCTCCGCTCAGAGGAACAAGCCAGGCGTGT ACACAAGGCTCCCTGTAGTTCGGGACTGGATCAAAGAGCACACTGGGGTATAGCAGCATG GACAGACAGCCGACCACAAACACCCACAGGGATGCCCGACATGCACACCTGGATACAGGA ACTGCATCCTTAGGACTCAGAGTTCTTCCAAAGTGGGACCCCCTCAAGAGTTGGAGAGAG AACTTGCGTGCTAGCGGCCCAGCCTGGGGGCAAGGGTTTGATGGCAGCCTTCCCCCTCTA GCCCTGAGCTGGGTGAAGATGATGCTGTCCCGGAGAGCTGCTTCCAACTGTCATTGAGCT CCCGGGAGCCCTATGGGAGGGGGCTCAGGGTCACTCTTTTCAGGAAGCGCCAGCCCTA GGAACCCCAGAAAAGAGTGGTACCTAAGGCTGAAAT]TGTTTTGCTGTTGCCAGGGGTGG 

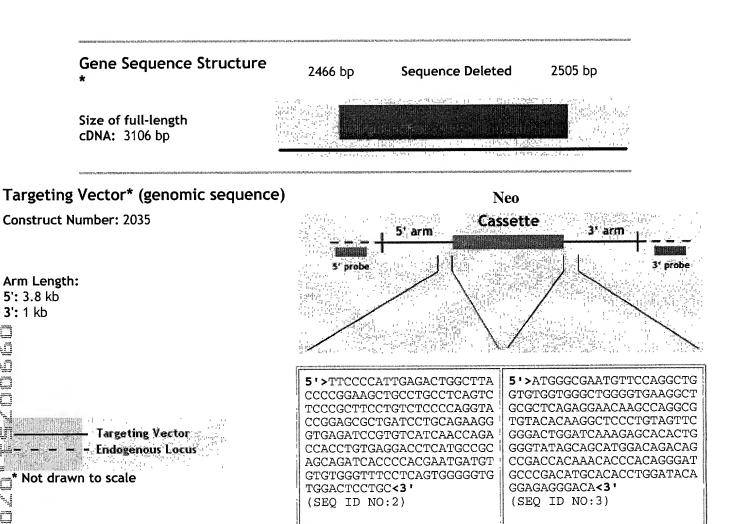


FIGURE 2B

THE ENT